



## Using the World Wide Web at HMC

In the last issue of *Occasional Downtime* we gave a brief history of the Internet and the foundation of the World Wide Web. We also mentioned a few of the most important concepts associated with the Web, including some of the “buzzwords” such as HTML, HTTP and URL. In this issue we will talk about the browsers available at HMC and about how to get started using the Web.

### **BROWSERS AVAILABLE AT HMC**

All you need to use the Web is a connection to the Internet and a piece of software called a Web client or browser. There are several different ways people are connected to the Internet at HMC. How you are connected and what computer platform you use will determine to some extent what kind of browsing software you can use. On the UNIX platform there are three browsers in use on campus: Netscape, NCSA Mosaic, and Lynx. On the VMS cluster we have NCSA Mosaic and Lynx. For Windows and Macintosh we are currently only supporting Netscape. The new freeware version of Netscape for Windows and Macintosh is installed on the Academic Computing file server, Kato, from which it can be downloaded and installed on your desktop computer. For more information on obtaining Netscape contact Elizabeth Hodas or Patience Brooks at Academic Computing.

Netscape and NCSA Mosaic are both examples of what are called graphical browsers. They can display the full range of multimedia resources of the Web including graphics, audio, and video. They also support the use of forms and clickable images which will be discussed later. Lynx, on the other hand, is an example of a text-only browser. It is only capable of displaying the text on a Web page. Graphics, audio and video are not supported although forms are.

If you have a direct connection to the Internet, such as an ethernet connection in your office or lab, then you will be able to use the graphical browsers. If you are limited to a serial connection, such as when you dial-in from off-campus, then you may be restricted to the text-only browser, Lynx. Dialing-in using SLIP or PPP will offer more flexibility in the future, however. (For more information on SLIP and PPP see the article on e-mail in this issue.)

### **HOW DO GRAPHICAL BROWSERS WORK?**

When you select a hypertext link or open a URL by typing it in, the browser responds by attempting to connect to the server identified by the URL. If you look at the status line at the bottom of the screen you will see messages flash by as the (*continued on page 4*)



# E-Mail at HMC: Part II

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In the last issue of *Occasional Downtime* we discussed the different types of e-mail systems available at HMC. In this issue we will discuss some of the more advanced features of e-mail systems.

### SENDING A FILE

Besides providing another means of communicating with your colleagues, e-mail can give you a quick and easy way to exchange documents. It can be used to exchange scholarly papers or hand in homework and term papers for example. Unless your document is a plain text document (Microsoft Word documents are not plain text documents!), however, you first have to either convert it to ASCII or encode it before sending it via e-mail. The reason for this is that most e-mail systems were designed to send and display text only. Most data files, including word processor files which have formatting information or other non-printing characters, contain binary data which cannot be sent through e-mail. In order to protect your files from being corrupted while being sent through the e-mail system you need to encode them using a conversion program. The recipient of your e-mail message then decodes the file in order to convert it back into its original format. Even if both your mailer, and that of the document's recipient are smart modern ones, encoding is still necessary as your mail may pass through a more antiquated system on the way to its destination.

A variety of encoding standards have been developed for the various computer platforms. For instance, UNIX, VMS and the PC world use a standard called 'uuencoding' while 'BinHex' was developed for the Macintosh. Files that

have been uuencoded generally have the file extension '.uu' or '.uue' while BinHex files have the extension '.hqx'.

Another consideration when sending files via e-mail is the question of size. Some e-mail systems are still limited to files no larger than 32K. Large files thus need to be split into multiple files or compressed before being sent via e-mail. Again there are a variety of different compression standards. UNIX has a built-in program called 'compress' which creates files with the '.Z' extension. The most common DOS format is 'ZIP' which produces files with the extension '.ZIP'. On the Macintosh the most popular format is StuffIt 3.0 which creates files with the extension '.sit'. Another format, 'gzip', also exists for UNIX and VMS and is the free GNU version of ZIP. A Macintosh version, called MacGzip, is also available. Gzip creates files with the extension '.z' or '.gz'.

In addition to compressing files, ZIP, gzip, and StuffIt also archive files, allowing you to send several files at once. UNIX's 'compress' program only works on one file, however. To archive several files you use a program called 'tar' which creates a file with the extension '.tar'. This file can then be compressed, creating a file with the extension '.tar.z'. Note that because the various compression programs all produce binary (non-text) files, they should be used before the files are encoded and the encoding done only afterwards.

If this sounds confusing, don't panic. Explaining the different file formats is more complicated than actually using the

various applications which create and decode them. The UNIX and VMS applications are already available on these systems. Most of the Macintosh and Windows applications mentioned are freeware or shareware and are available on the Academic Computing file servers. In addition, many of the modern mail systems will do the work for you. Eudora has a very nice built-in feature for sending data files called Attachments. With the Attachments feature you can send any Macintosh or PC document with a Eudora message. Unless the attached document is a plain text document it does not actually appear in the message text but is encoded according to one of several different formats you specify and sent along with the message. If the recipient of the message also uses Eudora the document is automatically decoded and placed in a separate folder upon receipt. Plain text documents are added to the text of your message as if you had typed it manually. If the recipient of your message does not use Eudora then he/she will have to decode it before using it. Similarly if someone who does not use Eudora sends you an encoded attached data file you may need to use a utility such as StuffIt Expander or gzip in order to use it.

#### **READING AND ORGANIZING LARGE AMOUNTS OF E-MAIL**

Once you start using e-mail you may find yourself quickly overwhelmed, especially if you subscribe to several electronic mailing lists. Learning to manage and organize large amounts of e-mail is a skill all in itself. First of all you have to decide what you are going to do with messages once you have read them. Some people just throw them away; others like to archive their e-mail for future reference. If you do decide to save your e-mail you will find that your inbox fills up quickly and it becomes harder and harder to find the messages you want. A large inbox will also slow down your e-mail system considerably. To solve this problem, just about all modern (continued on page 6)

## *Editor's Notes*

Not quite two months have passed since the publication of the first issue of the new *Occasional Downtime*. We were a little late in publishing the first issue, but decided to come out with this issue in June so that we can stay with our original plan of publishing a Welcome Freshmen issue in August. Our August issue will focus on describing the computing resources at HMC, an introduction to Academic Computing staff, as well as explanations of changes made over the summer.

In this issue we continue with the second part of articles on electronic mail and the World Wide Web. In addition to our usual Tricks&Tips and Q&A sections, we also have a tentative list of upcoming summer workshops. If you have an idea for a workshop and don't see it on the list, let us know by sending e-mail to [downtime@hmc.edu](mailto:downtime@hmc.edu).

*Occasional Downtime* is now available in several different electronic formats: plain text format on our Gopher server and in HTML and Acrobat format on the Web. If you're not familiar with the Acrobat format you may want to check our *About the Adobe Acrobat (PDF) Format* page at <http://www.hmc.edu/comp/occ-down/pdf/about.html>. Adobe's Acrobat software is becoming more and more popular as a way of publishing and distributing information on the Web.

—Elizabeth Hodas

*Occasional Downtime* is published bimonthly by the Academic Computing Department at Harvey Mudd College. It is also available in plain text format on the HMC Gopher Server and in a variety of formats on the HMC Web Server. Comments and questions can be directed to [downtime@hmc.edu](mailto:downtime@hmc.edu).

*WWW continued from page 1*

browser attempts to connect such as "Connect: Host contacted, waiting for reply." If the browser can't connect, either because the server is down or busy or because the URL is incorrect, an explanatory message is displayed. Once the browser succeeds in connecting, it sends a request to the server, usually a request for a data object like an HTML file or an image file that was designated by the URL. If the server can fulfill the request it then sends the data. You can see this phase in the browser status line as it displays a message like "Transferring data." After the transfer is done, the connection is closed.

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**“ the best way to learn about the Web is to experiment... ”**

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Once the browser has the requested data file it can do a variety of things. Most of the time the data object retrieved is another HTML file which the browser displays by interpreting the HTML codes and displaying the formatted text with the hypertext links to the screen. The browser can also save the file to disk (if you've used Netscape to FTP a file, for example). If the file retrieved is not an HTML file the browser can also launch another application to view an image or play an audio file. These applications are called helper applications and are used by the browser to handle file types that it cannot directly display. Some examples on the Macintosh platform are Sound Machine which plays audio files, Sparkle for viewing mpeg videos, and Simple Player for viewing Quick Time movies. Netscape has the built-in capacity to view two kinds of images, gif and jpeg, which are the most commonly used type of image file formats. Most of the helper applications you'll need for the Macintosh version of Netscape are included with the Netscape application on the file server.

In addition to the multimedia resources we've discussed, graphical browsers also support clickable images and forms, which may need a little more explanation. Clickable images (also called *imagemaps*) are images which contain embedded hypertext links. This feature is often used to implement maps so that clicking on an particular area on the map will take the user to information about that area. Web publishers use this feature for many things, however. The new Harvey Mudd College Web server, for example, uses a clickable image (like the one on the front page) at the top of many of the official pages as a navigational tool, allowing the user to jump to the main sections of the server more easily.

Forms are another feature supported by graphical browsers. Forms allow users to type in information and then submit it to a server for processing. They are generally used for user feedback, ordering products, and for conducting searches. Most browsers now also support what are called "mailto links." Clicking on a mailto links brings up a dialog box allowing the user to compose and send an e-mail message to the e-mail address specified in the link. Hypertext links in the address field at the bottom of many Web pages are actually mailto links.

#### **HOW ARE TEXT-BASED BROWSERS DIFFERENT?**

Text-based browsers such as Lynx work in pretty much the same way as the graphical browsers. The main difference is that since they are mostly intended to be used on text-only terminals, they can only display text. They cannot display graphics so any in-line images (including *imagemaps*) on a Web page will either be missing altogether or replaced by alternate text specified by the page's designer. Lynx does support forms and mailto links. In addition, while it cannot directly display images or play audio files, Lynx is capable of saving these types of files to disk so that the user can later display them using another application.

Lynx may not be as flashy or visually compelling as the graphical browsers, but it can still be a very useful tool for exploring the Web. Because it does not have to load large image files it is much faster than the graphical browsers. It can also be used over a serial connection which makes it a good choice when dialing-in from off-campus.

#### GETTING STARTED ON THE WEB

Browsers share many of the same basic features. They all allow you to navigate the Web by going forwards and backwards along the links you have visited. Netscape and Mosaic also allow you to jump around by maintaining a history of previously visited links. Netscape, Mosaic and Lynx all allow you to maintain a list of bookmarks (Hotlist in Mosaic), or sites that you visit frequently. You can also designate a default home page which is the page that the browser automatically opens when you launch the application. There are a number of other features, but the best way to learn about the Web is to experiment. All of the browsers offer extensive on-line help and it's pretty much impossible to get lost.

The most common problem new users complain about is the question of where to start. The Web can seem like a huge confusing place. Fortunately there are a number of resources you can use to help get you started. Several companies, universities and other institutions have developed directories of World Wide Web sites which are then indexed and organized by category. These can be browsed or, in some cases, searched by entering keywords. Many individuals have also collected lists of sites on particular topics they are interested in. You may want to check the "Where To Go From Here" section of this issue for some directories and search engines to start with. Netscape and the NCSA also sponsor lists of new or "cool" sites that you can explore. Try clicking the "What's New" and "What's Cool" buttons at the top of the Netscape window or choosing "What's New" from the Help menu in Mosaic. 🐘

#### SUMMER WORKSHOPS

- ▼ Introduction to the World Wide Web: An introduction to the Web covering some of the basic concepts, browsers, and how to get started.
- ▼ Intermediate World Wide Web: Some more advanced topics for people who have experimented with the Web including helper applications, searching the Web, and FTP using the Web.
- ▼ Advanced Web: The next step in becoming a Webophile—creating your own Web documents! An introduction to the basics of writing HTML, including some pointers on good HTML style. We will also discuss how to incorporate your Web documents into the HMC Web server.
- ▼ News: An introduction to reading and posting to the newsgroups with a discussion of some of the more popular newsreaders.
- ▼ Introduction to Eudora: Intended for people who have never used Eudora but who are interested in switching from their mainframe e-mail system to Windows or Macintosh Eudora.
- ▼ Advanced Eudora: For people who have used Eudora and are interested in learning more about its features.
- ▼ Dialing in to HMC from off-campus: A workshop covering the basics of how to connect to the HMC campus from your home computer.
- ▼ Listkeeper: How to use Listkeeper, including how to subscribe to and unsubscribe from lists, how to request the creation of a new list and how to manage a list.

e-mail systems, including Elm, Pine, Eudora and VMS Mail, provide a feature called folders for organizing your e-mail.

Eudora is a little different from other systems in that it provides hierarchical folders for storing your e-mail messages. In other words you can have folders which contain other folders. Most other e-mail systems (Elm and Pine included) do not have this feature. Eudora actually uses two different concepts: folders and mailboxes. Folders contain other folders and/or mailboxes but do not directly contain e-mail messages. Mailboxes contain e-mail messages.

#### **ALIASES**

Aliases allow you to create your own shortcuts for e-mail addresses. If you find yourself sending e-mail to a colleague at another university frequently you can use this feature to save yourself some typing and also avoid the possibility of making typing mistakes. You can also use aliases to create your own personal mailing lists by creating aliases that include more than one e-mail address. Pine even has a feature called an address book for helping you to organize your aliases. Eudora has two features, called Nicknames and Quick Recipients, for helping you with e-mail addresses you use frequently.

#### **SIGNATURE FILES**

Signature files allow you to specify personal information that is automatically appended at the end of your e-mail messages. You can include information like your full name, your title, affiliation, phone number, preferred e-mail address, fax number, etc. Some people enjoy including fun information like a favorite quote. Just don't get carried away! Having a ten line signature attached to a one line e-mail message can be annoying.

#### **READING E-MAIL AT HOME**

As you become more involved with using

e-mail at the office you may want to have the ability to check and read your e-mail from your home as well. Until recently the only way of dialing in to the campus network was through asynchronous terminal-to-host communication. This mode basically uses a terminal program to turn your desktop computer into a dumb terminal and is limited to alphanumeric characters and symbols. Only the mainframe e-mail systems are accessible via this mode of communication.

Academic Computing is in the process of testing a second mode of communication using SLIP (Serial Line Internet Protocol) or PPP (Point-to-Point Protocol). SLIP/PPP communication allows your desktop computer to dial up and become part of the network. SLIP and PPP are functionally very similar; PPP is somewhat more flexible and supports multiple protocols (such as AppleTalk and TCP/IP) at the same time and over the same connection. The SLIP/PPP connection functions very much like the ethernet connection in your office or computer lab and allows you to take advantage of Macintosh and Windows software with graphical interfaces, including software for "surfing" the Internet such as Netscape and Mosaic, FTP software such as Fetch, and telnet software such as NCSA Telnet. SLIP/PPP will also allow you to use Eudora to check your mail from home. At the moment the SLIP/PPP connection is still in the experimental stage. Academic Computing will be announcing its availability for more general use by the end of this summer. Use of SLIP and PPP is intended primarily for faculty and staff, but students living off campus with a legitimate need may also obtain SLIP or PPP accounts. For more information on SLIP/PPP contact Elizabeth Hodas or Roger Wiechman at Academic Computing.

Supporting faculty and staff who are interested in dialing in from their homes has historically been somewhat of a

# Tricks & Tips

## & Tricks

### WHERE TO GO FROM HERE

#### ➔➔➔ *Electronic resources:*

#### **WWW directories**

##### ▼ Yahoo:

<http://www.yahoo.com/>

##### ▼ The Whole Internet Catalog:

<http://nearnet.gnn.com:80/wic/>

##### ▼ The WWW Virtual Library:

<http://www.w3.org/hypertext/DataSources/bySubject/Overview.html>

##### ▼ U.S. Geological Survey Network Resources:

<http://www.usgs.gov/network/index.html>

#### **Search engines:**

##### ▼ Yahoo search:

<http://www.yahoo.com/search.html>

##### ▼ Lycos:

<http://lycos.cs.cmu.edu/>

##### ▼ Webcrawler searching: [http://](http://webcrawler.cs.washington.edu/WebCrawler/WebQuery.html)

[webcrawler.cs.washington.edu/WebCrawler/WebQuery.html](http://webcrawler.cs.washington.edu/WebCrawler/WebQuery.html)

dilemma for Academic Computing. It is not possible for our staff to do “house calls” and it is difficult to provide user support over the phone. This problem is compounded by the fact that faculty and staff are using a wide variety of different software and hardware configurations. For this reason Academic Computing is working on developing a list of recommended software and hardware options which we can support to the extent of answering questions regarding installation and setup. Workshops on using both the asynchronous and SLIP/PPP connections are planned for this summer as well. ☺

#### **SAVING IMAGES FROM WEB PAGES**

The new version of Netscape (v. 1.1N) has made it a lot easier to save images to your desktop computer. Just position the mouse over the image, then click the right-side mouse button (on the Macintosh, hold down the mouse button) to produce a pop-up menu. The menu item *View this Image* displays the isolated image file in Netscape. The menu item *Save this Image as* brings up a dialog box for saving the image file. Select the directory you want to save the image to, change the file name if you want and click *Save*. The menu item *Copy this Image Location* copies the URL of the image file to the clipboard. You can then switch to another application and paste in the URL. The menu item *Copy this Image* actually copies the image itself to the clipboard. You can then switch to another application and paste in a copy of the image. If the image is a link rather than an in-line image (i.e. if clicking on the image takes you to the full version of the image or to another site) then there will be additional menu items. For instance, the menu item *Save this Link as* brings up a dialog box for saving the image or file pointed to by the link.

#### **USING BOOKMARKS IN LYNX**

Netscape is not the only WWW browser to have the bookmarks feature. Lynx will also let you create a bookmarks file. To add a link to your bookmarks file simply go to the site you want to add and type *a*. To view your bookmarks type *v* at any time. Then select the link you want to go with the up and down arrow keys and go to it by pressing *Return* or the right arrow key. Your bookmarks are stored in a file called `lynx_bookmarks.html` in your home directory. You can remove links or change the order in which they are displayed by editing the file using your favorite editor. ☺

# QUESTIONS *and* ANSWERS

**Q:** I've tried using Lynx on my Thuban account but when I do all I get is this message:  
%DCL-W-IVVERB, unrecognized command verb - check validity and spelling \LYNX\  
What am I doing wrong?

**A:** Before running Lynx on any of the machines in the VMS cluster you first need to type the command:  
\$ setup infosys  
You should then get the message:  
Information systems setup complete. You can then go ahead and type the command lynx at the prompt. If you are going to be using Lynx often then you probably want to add this line to your LOGIN.COM file.

**Q:** I installed a freeware Windows application from the file server Kato to my hard drive but when I start Windows I don't have an icon for it anywhere. How do I create an icon for it?

**A:** From the Windows Program Manager select New from the File menu. If you want to create a new group to put the icon in click Program Group, type in the description you want to appear in the new group window's title bar and click OK or press Enter. If you want to just create the new icon click Program Item and type the description you want to appear under the icon.

Move to the Command Line text box. Type the application's complete file name (including the drive letter, pathname and file name) or click on the Browse button and find the application. You can leave the Working Directory text box blank. Click OK.

**Q:** I'm using Microsoft Word 5.1a on my Macintosh to edit a document and want part of the document in two-column format. I managed to create the two columns successfully but when I try to change the width of one column both columns change. What am I doing wrong?

**A:** In version 5.1a of Microsoft Word columns must be of the same width. If you want columns of uneven width you have to use the Table command rather than columns. The new version of Microsoft Word, Word 6.0, does support columns of unequal width.

**Q:** Have a question that's been bugging you?

**A:** Send it to *Occasional Downtime* at [downtime@hmc.edu](mailto:downtime@hmc.edu) and we'll try to answer it! 🐾

## FUN AND TOTALLY USELESS SITES

Getting tired of visiting all of those useful educational Web sites? Try some of these purely fun sites. They are guaranteed to be silly, but well-done.

▼ Ragú Presents—Mama's Cucina:  
<http://www.ragu.com/>

▼ electronic Gourmet Guide:  
<http://www.deltanet.com:80/2way/egg/>

▼ Godiva Chocolate:  
<http://www.godiva.com/>